

SECTION 02625**SANITARY SEWER MANHOLE INFILTRATION INSERT****PART 1 - GENERAL****1.01 SCOPE**

This section specifies sanitary sewer manhole infiltration inserts. Manhole inserts shall be furnished and installed in all new sanitary sewer manholes and all manholes to be rehabilitated as part of the Project.

PART 2 - PRODUCTS**2.01 GENERAL**

The manhole infiltration inserts furnished shall be the product of firms which have been regularly engaged in the manufacture of such items for a period of at least five (5) years.

2.02 MATERIAL

- A. All materials used in the manufacture of the infiltration inserts shall be highly resistant to corrosion from sanitary sewer atmospheres containing hydrogen sulfide and dilute sulfuric acid.
- B. Infiltration insert body shall be manufactured of High Density Polyethylene meeting the requirements of American Society for Testing and Materials Standard D1248-84 (Reapproved 1989), "Polyethylene Plastics Molding and Extrusion Materials", Type III, Class A, Category 5 or stainless steel, when required by the Department.
- C. The insert shall have a straight-side design to allow penetration of the manhole lid drop ring through the clear opening of the manhole frame. The depth of the insert shall be such that the manhole lid will not come into contact with the insert during removal and replacement of the lid (i.e. lid rotation). The insert shall be designed to provide a sufficiently loose fit into the manhole frame to allow easy removal. The insert manufacturer shall furnish a "Load Test Verification" certifying a load test failure in excess of 750 pounds.
- D. The infiltration inserts shall be dimensioned to fit the frame and cover of Miami-Dade Water and Sewer Department's "Type A" sanitary sewer manholes as shown in the Standard Detail
- E. The gasket shall be installed by the manufacturer and shall be of an envelope type, providing a seal on both the upper and lower sides of that portion of the insert which seats in the manhole frame. The gasket shall be made of EPDM rubber and shall provide a watertight seal when installed. The gasket shall be permanently attached to the insert by means of chemical bonding (or a waterproof adhesive for stainless steel inserts). The maximum allowable leakage through the infiltration insert shall be five (5) gallons in 24 hours.

- F. A gas relief valve shall be provided to vent sewer gases and shall be designed to release at a pressure of 0.6 to 1.5 psi. The gas relief valve shall be located such that it will not be damaged by manhole lid rotation. The gas relief valve shall be constructed of materials which will not corrode from contact with hydrogen sulfide, dilute sulfuric acid and other gases associated with wastewater.
- G. A handle made of nylon webbing no less than 1 inch wide, shall be installed on the insert body with stainless steel rivets and washers. The handle shall be located so that it does not interfere with the installation of the manhole lid, yet still provides for easy removal of the infiltration insert. The handle shall be able to withstand a pull of at least 500 pounds before failure or separation from the insert body.

PART 3 - EXECUTION

3.01 INSTALLATION

- A.. Inserts shall be installed in accordance with the manufacturer recommendations.
- B. The Department reserves the right to require installation of stainless steel inserts, as required.
- C. Manhole frame shall be set so that the tops of the covers are flush with the adjoining pavement or ground surface.

- END OF SECTION -